0070016

SAF-RC-047
100 & 300 Area Component of the RCBRA Sediment and Tissues FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

RECEIVED
JUN 2 2 2006
EDMC

Jill Thomson	H0-23	KW 6/13/06 INITIAL/DATE
Jeanette Duncan	H9-02	KW 6/13/06 INITIAL/DATE

COMMENTS:

SDG K0222 **SAF-RC-047**

Rad only X Chem only Rad & Chem

X Complete Partial

Waste Site: U-3, U-5, U-6, U-7, U-8 Sediment

Revised Metals to include Strontium and Bismuth

LIONVILLE LABORATORY INC.

RECEIVED 2006

7 June 2006

Joan Kessner
WC-Hanford
3190 Washington Way
MSIN H9-03
Richland, WA 99354

Subject: Analytical Data Package

Dear Ms. Kessner:

Enclosed are revised hard copy metals reports for the SDGs indicated (marked X) in the following table:

SDG #	K0212
	K0217
	K0222
	K0229
	K0232
	K0236
	K0238
	K0242
	K0243
	K0244
	K0249

The electronic data deliverable (EDD) will be emailed shortly. If you have any questions, please don't hesitate to contact me at (610) 280-3012.

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager

r:\group\pm\orlette\tnu-hanford\data\b_ltrs_revisions.doc

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

RECEIVED JUN 2006

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J11736						
SILVER, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
SILVER, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
SILVER, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL REP	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL SPIKE	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COPPER, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
MERCURY, TOTAL	001	SO	06C0030	02/13/06	02/16/06	02/17/06
MERCURY, TOTAL	001 REP	SO	06C0030	02/13/06	02/16/06	02/17/06
MERCURY, TOTAL	001 MS	SO	06C0030	02/13/06	02/16/06	02/17/06
POTASSIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/13/06
POTASSIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/13/06
POTASSIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/13/06
LITHIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
LITHIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
LITHIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
SODIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/13/06
SODIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/13/06
SODIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/13/06
NICKEL, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
NICKEL, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
NICKEL, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
PHOSPHORUS, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/13/06
PHOSPHORUS, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/13/06
PHOSPHORUS, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/13/06
LEAD, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
LEAD, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
LEAD, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SELENIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	001	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	001 REP	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	001 MS	SO	06L0122	02/13/06	02/23/06	03/03/06
J11741						
SILVER, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222 .

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BISMUTH, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
MERCURY, TOTAL	002	SO	06C0030	02/13/06	02/16/06	02/17/06
POTASSIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/13/06
LITHIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
SODIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/13/06
NICKEL, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
PHOSPHORUS, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/13/06
LEAD, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	002	SO	06L0122	02/13/06	02/23/06	03/03/06
J11742						
SILVER, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CALCIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
MERCURY, TOTAL	003	SO	06C0030	02/13/06	02/16/06	02/17/06
POTASSIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/13/06
LITHIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
SODIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/13/06
NICKEL, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
PHOSPHORUS, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/13/06
LEAD, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	003	SO	06L0122	02/13/06	02/23/06	03/03/06
J11743						
SILVER, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CADMIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
COBALT, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
MERCURY, TOTAL	004	SO	06C0030	02/13/06	02/16/06	02/17/06
POTASSIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/13/06
LITHIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
SODIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/13/06
NICKEL, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
PHOSPHORUS, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/13/06
LEAD, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	004	SO	06L0122	02/13/06	02/23/06	03/03/06
J11744						
SILVER, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
ALUMINUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
ARSENIC, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
BORON, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
BARIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
BERYLLIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
BISMUTH, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
CALCIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
CADMIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COBALT, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
CHROMIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
COPPER, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
IRON, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
MERCURY, TOTAL	005	SO	06C0030	02/13/06	02/16/06	02/17/06
POTASSIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/13/06
LITHIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
MAGNESIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
MANGANESE, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
MOLYBDENUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
SODIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/13/06
NICKEL, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
PHOSPHORUS, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/13/06
LEAD, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
ANTIMONY, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
SELENIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
SILICON, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
TIN, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
STRONTIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
TITANIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
THALLIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
URANIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
VANADIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
ZINC, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06
ZIRCONIUM, TOTAL	005	SO	06L0122	02/13/06	02/23/06	03/03/06

LAB QC:

SILVER LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
SILVER, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
ALUMINUM LABORTORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
ALUMINUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
ARSENIC LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
ARSENIC, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
BORON LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
BORON, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
BARIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
BARIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BERYLLIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
BERYLLIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
BISMUTH, LCS	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
BISMUTH, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
CALCIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
CALCIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
CADMIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
CADMIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
COBALT LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
COBALT, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
CHROMIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
CHROMIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
COPPER LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
COPPER, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
IRON LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
IRON, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
MERCURY LABORATORY	LC1 BS	S	06C0030	N/A	02/16/06	02/17/06
MERCURY, TOTAL	MB1	S	06C0030	N/A	02/16/06	02/17/06
POTASSIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/13/06
POTASSIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/13/06
LITHIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
LITHIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
MAGNESIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
MAGNESIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
MANGANESE LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
MANGANESE, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
MOLYBDENUM LABORATOR	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
MOLYBDENUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
SODIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/13/06
SODIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/13/06
NICKEL LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
NICKEL, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
PHOSPHORUS LCS	LC1 BS	S	06L0122	N/A	02/23/06	03/13/06
PHOSPHORUS, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/13/06
LEAD LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
LEAD, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
ANTIMONY LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
ANTIMONY, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0222

DATE RECEIVED: 02/15/06 LVL LOT # :0602L268

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SELENIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
SELENIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
SILICON LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
SILICON, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
TIN LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
TIN, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
STRONTIUM LCS STANDA	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
STRONTIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
TITANIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
TITANIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
THALLIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
THALLIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
URANIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
URANIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
VANADIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
VANADIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
ZINC LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
ZINC, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06
ZIRCONIUM LABORATORY	LC1 BS	S	06L0122	N/A	02/23/06	03/03/06
ZIRCONIUM, TOTAL	MB1	S	06L0122	N/A	02/23/06	03/03/06

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD RC-047
LVL#: 0602L268
SDG/SAF#: K0222/RC-047

W.O.#: 11343-606-001-9999-00
Date Received: 02-15-06

****Revision****
This report has been revised to include the addition of Bismuth and Strontium.

METALS CASE NARRATIVE

1. This narrative covers the analyses of 5 solid samples.

2. The samples were prepared and analyzed in accordance with methods checked on the attached glossary. The samples were rerun for Potassium, Sodium, and Phosphorous due to sample matrix.

3. All analyses were performed within the required holding times.

4. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

5. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within the 90-110% control limits (80-120% for Mercury).

6. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within control limits (less than the PQL).

7. All preparation/method blanks (MB) were within method criteria {less than the Practical Quantitation Limit (3X the IDL), or samples greater than 20X MB value}. Refer to the Inorganics Method Blank Data Summary.

8. All ICP Interference Check Standards were within control limits.

9. All laboratory control samples (LCS) were within the 80-120% control limits with the exception of Silicon at 64.2%. Refer to the Inorganics Laboratory Control Standards Report. Associated sample results may be biased low.

10. The matrix spike (MS) recoveries for 7 analytes were outside the 75-125% control limits. Refer to the Inorganics Accuracy Report.

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 23 pages.

11. For analytes where the ICP MS is out-of-control, a post-digestion MS (PDS) and serial dilution are performed. A PDS was prepared at meaningful concentration level for the following analytes:

Sample ID	Element	PDS Concentration (ppb)	PDS % Recovery
J11736	Aluminum	22,000	95.7
	Calcium	22,000	89.2
	Iron	22,000	95.5
	Phosphorous	2,000	95.6
	Antimony	100	91.1
	Silicon	2,100	91.0
	Titanium	2,500	99.3

12. The duplicate analyses for 9 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

13. For the purposes of this report, the data has been reported to the Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

14. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

15. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

for Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

5/31/06
Date

jjw/m02-268r

LVLI
LIONVILLE LABORATORY INC.

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within t
Lot#: 06074268

Leaching Procedure: __1310 __1311 __1312 __Other:_____

CLP Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

Metals Digestion Methods: __3005A __3010A __3015 __3020A X 3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	X 6010B		__200.7				__99
Antimony	X 6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	X 6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	X 6010B		__200.7				__99
Beryllium	X 6010B		__200.7				__99
Bismuth	X 6010B [1]		__200.7 [1]			__1620	__99
Boron	X 6010B		__200.7				__99
Cadmium	X 6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	X 6010B		__200.7				__99
Chromium	X 6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	X 6010B		__200.7				__99
Copper	X 6010B	__7211 [5]	__200.7	__220.2			__99
Iron	X 6010B		__200.7				__99
Lead	X 6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	X 6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	X 6010B		__200.7				__99
Manganese	X 6010B		__200.7				__99
Mercury	__7470A [3]	X 7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	X 6010B		__200.7				__99
Nickel	X 6010B		__200.7				__99
Potassium	X 6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	X 6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	X 6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	X 6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	X 6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	X 6010B		__200.7				__99
Thallium	X 6010B	__7841 [5]	__200.7	__279.2 __200.9			__99
Tin	X 6010B		__200.7				__99
Titanium	X 6010B		__200.7				__99
Uranium	X 6010B [1]		__200.7 [1]			__1620	__99
Vanadium	X 6010B		__200.7				__99
Zinc	X 6010B		__200.7				__99
Zirconium	X 6010B [1]		__200.7 [1]			__1620	__99

Other: Phosphorous Method: 6010B

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LCS = Laboratory Control Sample.
NC = Not calculated.

ANALYTICAL METAL METHODS

1. Not included in the method element list.

2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, approximately 0.3 grams of sample is taken to a final volume of 50 mL (including all reagents).

3. Flame AA.

4. Graphite Furnace AA.

L-WI-033/N-04/98

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	J11736	Silver, Total	0.16 u	MG/KG	0.16	1.0
		Aluminum, Total	5480	MG/KG	2.1	1.0
		Arsenic, Total	2.3	MG/KG	0.39	1.0
		Boron, Total	1.3	MG/KG	0.31	1.0
		Barium, Total	82.3	MG/KG	0.02	1.0
		Beryllium, Total	0.72	MG/KG	0.01	1.0
		Bismuth, Total	0.70 u	MG/KG	0.70	1.0
		Calcium, Total	4440	MG/KG	1.4	1.0
		Cadmium, Total	0.37	MG/KG	0.08	1.0
		Cobalt, Total	5.2	MG/KG	0.14	1.0
		Chromium, Total	9.6	MG/KG	0.18	1.0
		Copper, Total	12.9	MG/KG	0.14	1.0
		Iron, Total	14100	MG/KG	3.7	1.0
		Mercury, Total	0.03	MG/KG	0.02	1.0
		Potassium, Total	886	MG/KG	88.9	1.0
		Lithium, Total	5.6	MG/KG	0.03	1.0
		Magnesium, Total	3190	MG/KG	1.6	1.0
		Manganese, Total	206	MG/KG	0.02	1.0
		Molybdenum, Total	0.29	MG/KG	0.15	1.0
		Sodium, Total	85.3	MG/KG	2.9	1.0
		Nickel, Total	8.7	MG/KG	0.15	1.0
		Phosphorus, Total	876	MG/KG	1.0	1.0
		Lead, Total	8.8	MG/KG	0.36	1.0
		Antimony, Total	0.46 u	MG/KG	0.46	1.0
		Selenium, Total	0.42	MG/KG	0.42	1.0
		Silicon, Total	530	MG/KG	0.95	1.0
		Tin, Total	0.83	MG/KG	0.50	1.0
		Strontium, Total	27.0	MG/KG	0.01	1.0
		Titanium, Total	885	MG/KG	0.05	1.0
		Thallium, Total	0.74 u	MG/KG	0.74	1.0
		Uranium, Total	2.4 u	MG/KG	2.4	1.0
		Vanadium, Total	32.8	MG/KG	0.10	1.0
		Zinc, Total	84.9	MG/KG	0.06	1.0
		Zirconium, Total	14.7	MG/KG	0.62	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J11741	Silver, Total	0.18 u	MG/KG	0.18	1.0
		Aluminum, Total	8440	MG/KG	2.3	1.0
		Arsenic, Total	6.2	MG/KG	0.43	1.0
		Boron, Total	1.9	MG/KG	0.34	1.0
		Barium, Total	189	MG/KG	0.03	1.0
		Beryllium, Total	0.78	MG/KG	0.01	1.0
		Bismuth, Total	0.76 u	MG/KG	0.76	1.0
		Calcium, Total	5270	MG/KG	1.5	1.0
		Cadmium, Total	0.43	MG/KG	0.09	1.0
		Cobalt, Total	7.5	MG/KG	0.15	1.0
		Chromium, Total	12.2	MG/KG	0.20	1.0
		Copper, Total	24.0	MG/KG	0.15	1.0
		Iron, Total	22500	MG/KG	4.0	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	771	MG/KG	96.6	1.0
		Lithium, Total	8.8	MG/KG	0.04	1.0
		Magnesium, Total	3760	MG/KG	1.7	1.0
		Manganese, Total	508	MG/KG	0.03	1.0
		Molybdenum, Total	0.67	MG/KG	0.16	1.0
		Sodium, Total	116	MG/KG	3.1	1.0
		Nickel, Total	18.3	MG/KG	0.16	1.0
		Phosphorus, Total	1160	MG/KG	1.1	1.0
		Lead, Total	14.9	MG/KG	0.39	1.0
		Antimony, Total	0.50 u	MG/KG	0.50	1.0
		Selenium, Total	0.45 u	MG/KG	0.45	1.0
		Silicon, Total	441	MG/KG	1.0	1.0
		Tin, Total	2.9	MG/KG	0.65	1.0
		Strontium, Total	28.2	MG/KG	0.01	1.0
		Titanium, Total	1610	MG/KG	0.05	1.0
		Thallium, Total	0.80 u	MG/KG	0.80	1.0
		Uranium, Total	2.6	MG/KG	2.6	1.0
		Vanadium, Total	40.3	MG/KG	0.11	1.0
		Zinc, Total	115	MG/KG	0.06	1.0
		Zirconium, Total	28.5	MG/KG	0.68	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	J11742	Silver, Total	0.17 u	MG/KG	0.17	1.0
		Aluminum, Total	9560	MG/KG	2.2	1.0
		Arsenic, Total	9.4	MG/KG	0.41	1.0
		Boron, Total	1.4	MG/KG	0.32	1.0
		Barium, Total	209	MG/KG	0.02	1.0
		Beryllium, Total	0.90	MG/KG	0.01	1.0
		Bismuth, Total	0.73 u	MG/KG	0.73	1.0
		Calcium, Total	4390	MG/KG	1.4	1.0
		Cadmium, Total	0.59	MG/KG	0.08	1.0
		Cobalt, Total	7.2	MG/KG	0.14	1.0
		Chromium, Total	16.3	MG/KG	0.19	1.0
		Copper, Total	21.9	MG/KG	0.14	1.0
		Iron, Total	24300	MG/KG	3.8	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	778	MG/KG	92.0	1.0
		Lithium, Total	13.0	MG/KG	0.04	1.0
		Magnesium, Total	3330	MG/KG	1.6	1.0
		Manganese, Total	494	MG/KG	0.02	1.0
		Molybdenum, Total	0.89	MG/KG	0.16	1.0
		Sodium, Total	111	MG/KG	3.0	1.0
		Nickel, Total	23.8	MG/KG	0.16	1.0
		Phosphorus, Total	1120	MG/KG	1.1	1.0
		Lead, Total	13.8	MG/KG	0.37	1.0
		Antimony, Total	0.48 u	MG/KG	0.48	1.0
		Selenium, Total	0.66	MG/KG	0.43	1.0
		Silicon, Total	497	MG/KG	0.98	1.0
		Tin, Total	1.6	MG/KG	0.62	1.0
		Strontium, Total	26.1	MG/KG	0.01	1.0
		Titanium, Total	2030	MG/KG	0.05	1.0
		Thallium, Total	0.76 u	MG/KG	0.76	1.0
		Uranium, Total	6.8	MG/KG	2.5	1.0
		Vanadium, Total	60.6	MG/KG	0.11	1.0
		Zinc, Total	133	MG/KG	0.06	1.0
		Zirconium, Total	28.4	MG/KG	0.64	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J11743	Silver, Total	0.16 u	MG/KG	0.16	1.0
		Aluminum, Total	6550	MG/KG	2.1	1.0
		Arsenic, Total	4.8	MG/KG	0.38	1.0
		Boron, Total	0.80	MG/KG	0.31	1.0
		Barium, Total	146	MG/KG	0.02	1.0
		Beryllium, Total	0.74	MG/KG	0.01	1.0
		Bismuth, Total	0.69 u	MG/KG	0.69	1.0
		Calcium, Total	4640	MG/KG	1.3	1.0
		Cadmium, Total	0.53	MG/KG	0.08	1.0
		Cobalt, Total	6.0	MG/KG	0.14	1.0
		Chromium, Total	9.4	MG/KG	0.18	1.0
		Copper, Total	19.8	MG/KG	0.14	1.0
		Iron, Total	22900	MG/KG	3.6	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	516	MG/KG	87.1	1.0
		Lithium, Total	8.1	MG/KG	0.03	1.0
		Magnesium, Total	3260	MG/KG	1.5	1.0
		Manganese, Total	446	MG/KG	0.02	1.0
		Molybdenum, Total	0.81	MG/KG	0.15	1.0
		Sodium, Total	106	MG/KG	2.8	1.0
		Nickel, Total	13.2	MG/KG	0.15	1.0
		Phosphorus, Total	1300	MG/KG	1.0	1.0
		Lead, Total	9.8	MG/KG	0.35	1.0
		Antimony, Total	0.45 u	MG/KG	0.45	1.0
		Selenium, Total	0.51	MG/KG	0.41	1.0
		Silicon, Total	368	MG/KG	0.93	1.0
		Tin, Total	1.8	MG/KG	0.59	1.0
		Strontium, Total	23.3	MG/KG	0.01	1.0
		Titanium, Total	1690	MG/KG	0.05	1.0
		Thallium, Total	0.72 u	MG/KG	0.72	1.0
		Uranium, Total	2.3 u	MG/KG	2.3	1.0
		Vanadium, Total	46.3	MG/KG	0.10	1.0
		Zinc, Total	98.1	MG/KG	0.06	1.0
		Zirconium, Total	33.6	MG/KG	0.61	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-005	J11744	Silver, Total	0.17 u	MG/KG	0.17	1.0
		Aluminum, Total	3110	MG/KG	2.3	1.0
		Arsenic, Total	2.7	MG/KG	0.42	1.0
		Boron, Total	0.39	MG/KG	0.33	1.0
		Barium, Total	43.3	MG/KG	0.02	1.0
		Beryllium, Total	0.41	MG/KG	0.01	1.0
		Bismuth, Total	0.75 u	MG/KG	0.75	1.0
		Calcium, Total	2210	MG/KG	1.5	1.0
		Cadmium, Total	0.09 u	MG/KG	0.09	1.0
		Cobalt, Total	3.2	MG/KG	0.15	1.0
		Chromium, Total	6.0	MG/KG	0.20	1.0
		Copper, Total	7.2	MG/KG	0.15	1.0
		Iron, Total	14500	MG/KG	4.0	1.0
		Mercury, Total	0.02 u	MG/KG	0.02	1.0
		Potassium, Total	444	MG/KG	95.1	1.0
		Lithium, Total	4.1	MG/KG	0.04	1.0
		Magnesium, Total	2540	MG/KG	1.7	1.0
		Manganese, Total	249	MG/KG	0.02	1.0
		Molybdenum, Total	0.46	MG/KG	0.16	1.0
		Sodium, Total	62.5	MG/KG	3.1	1.0
		Nickel, Total	7.4	MG/KG	0.16	1.0
		Phosphorus, Total	664	MG/KG	1.1	1.0
		Lead, Total	4.2	MG/KG	0.38	1.0
		Antimony, Total	0.49 u	MG/KG	0.49	1.0
		Selenium, Total	0.44 u	MG/KG	0.44	1.0
		Silicon, Total	479	MG/KG	1.0	1.0
		Tin, Total	1.6	MG/KG	0.64	1.0
		Strontium, Total	11.5	MG/KG	0.01	1.0
		Titanium, Total	1120	MG/KG	0.05	1.0
		Thallium, Total	0.79 u	MG/KG	0.79	1.0
		Uranium, Total	2.5 u	MG/KG	2.5	1.0
		Vanadium, Total	36.9	MG/KG	0.11	1.0
		Zinc, Total	48.4	MG/KG	0.06	1.0
		Zirconium, Total	10.1	MG/KG	0.67	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	06L0122-MB1	Silver, Total	0.14 u	MG/KG	0.14	1.0
		Aluminum, Total	1.8 u	MG/KG	1.8	1.0
		Arsenic, Total	0.34 u	MG/KG	0.34	1.0
		Boron, Total	0.27 u	MG/KG	0.27	1.0
		Barium, Total	0.02 u	MG/KG	0.02	1.0
		Beryllium, Total	0.01 u	MG/KG	0.01	1.0
		Bismuth, Total	0.61 u	MG/KG	0.61	1.0
		Calcium, Total	2.2	MG/KG	1.2	1.0
		Cadmium, Total	0.07 u	MG/KG	0.07	1.0
		Cobalt, Total	0.12 u	MG/KG	0.12	1.0
		Chromium, Total	0.16 u	MG/KG	0.16	1.0
		Copper, Total	0.12 u	MG/KG	0.12	1.0
		Iron, Total	3.2 u	MG/KG	3.2	1.0
		Potassium, Total	77.1 u	MG/KG	77.1	1.0
		Lithium, Total	0.03 u	MG/KG	0.03	1.0
		Magnesium, Total	1.4 u	MG/KG	1.4	1.0
		Manganese, Total	0.02 u	MG/KG	0.02	1.0
		Molybdenum, Total	0.13 u	MG/KG	0.13	1.0
		Sodium, Total	3.9	MG/KG	2.5	1.0
		Nickel, Total	0.13 u	MG/KG	0.13	1.0
		Phosphorus, Total	0.90 u	MG/KG	0.90	1.0
		Lead, Total	0.31 u	MG/KG	0.31	1.0
		Antimony, Total	0.40 u	MG/KG	0.40	1.0
		Selenium, Total	0.36 u	MG/KG	0.36	1.0
		Silicon, Total	0.82 u	MG/KG	0.82	1.0
		Tin, Total	0.70	MG/KG	0.52	1.0
		Strontium, Total	0.01	MG/KG	0.01	1.0
		Titanium, Total	0.05	MG/KG	0.04	1.0
		Thallium, Total	0.64 u	MG/KG	0.64	1.0
		Uranium, Total	2.1 u	MG/KG	2.1	1.0
		Vanadium, Total	0.09 u	MG/KG	0.09	1.0
		Zinc, Total	0.05 u	MG/KG	0.05	1.0
		Zirconium, Total	0.54 u	MG/KG	0.54	1.0
BLANK1	06C0030-MB1	Mercury, Total	0.02 u	MG/KG	0.02	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	J11736	Silver, Total	5.8	0.16u	5.8	100	1.0
		Aluminum, Total	7070	5480	231	687.3*	1.0
		Arsenic, Total	206	2.3	231	88.6	1.0
		Boron, Total	100	1.3	115	85.7	1.0
		Barium, Total	302	82.3	231	95.1	1.0
		Beryllium, Total	6.3	0.72	5.8	96.2	1.0
		Bismuth, Total	536	0.70u	576	93.1	1.0
		Calcium, Total	6510	4440	2880	72.0	1.0
		Cadmium, Total	5.7	0.37	5.8	92.0	1.0
		Cobalt, Total	59.0	5.2	57.6	93.4	1.0
		Chromium, Total	33.0	9.6	23.1	101.3	1.0
		Copper, Total	41.4	12.9	28.8	99.0	1.0
		Iron, Total	16400	14100	115	1975 *	1.0
		Mercury, Total	0.19	0.03	0.16	102.5	1.0
		Potassium, Total	3240	886	2880	81.5	1.0
		Lithium, Total	127	5.6	115	105.5	1.0
		Magnesium, Total	5980	3190	2880	96.8	1.0
		Manganese, Total	274	206	57.6	117.9	1.0
		Molybdenum, Total	108	0.29	115	93.2	1.0
		Sodium, Total	2550	85.3	2880	85.3	1.0
		Nickel, Total	61.8	8.7	57.6	92.2	1.0
		Phosphorus, Total	1190	876	576	54.4	1.0
		Lead, Total	62.1	8.8	57.6	92.5	1.0
		Antimony, Total	30.8	0.46u	57.6	53.5	1.0
		Selenium, Total	183	0.42	231	79.3	1.0
		Silicon, Total	893	530	115	314.7*	1.0
		Tin, Total	108	0.83	115	92.6	1.0
		Strontium, Total	135	27.0	115	93.3	1.0
		Titanium, Total	1220	885	115	290.9*	1.0
		Thallium, Total	210	0.74u	231	91.3	1.0
		Uranium, Total	261	2.4 u	288	90.6	1.0
		Vanadium, Total	93.0	32.8	57.6	104.5	1.0
		Zinc, Total	134	84.9	57.6	85.6	1.0
		Zirconium, Total	520	14.7	576	87.6	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD		DILUTION FACTOR(REP)
-001REP	J11736	Silver, Total	0.16u	0.16u	NC		1.0
		Aluminum, Total	5480	5310	3.1		1.0
		Arsenic, Total	2.3	3.2	32.7		1.0
		Boron, Total	1.3	1.1	16.7		1.0
		Barium, Total	82.3	90.3	9.3		1.0
		Beryllium, Total	0.72	0.79	8.3		1.0
		Bismuth, Total	0.70u	0.70u	NC		1.0
		Calcium, Total	4440	4620	3.9		1.0
		Cadmium, Total	0.37	0.32	13.1		1.0
		Cobalt, Total	5.2	5.5	5.6		1.0
		Chromium, Total	9.6	9.6	0.00		1.0
		Copper, Total	12.9	12.8	0.78		1.0
		Iron, Total	14100	16200	13.3		1.0
		Mercury, Total	0.03	0.02	24.0		1.0
		Potassium, Total	886	770	14.0		1.0
		Lithium, Total	5.6	5.1	9.3		1.0
		Magnesium, Total	3190	2980	6.9		1.0
		Manganese, Total	206	263	24.4		1.0
		Molybdenum, Total	0.29	0.38	25.9		1.0
		Sodium, Total	85.3	91.2	6.7		1.0
		Nickel, Total	8.7	8.6	1.2		1.0
		Phosphorus, Total	876	1070	19.6		1.0
		Lead, Total	8.8	9.6	8.7		1.0
		Antimony, Total	0.46u	0.46u	NC		1.0
		Selenium, Total	0.42	0.42u	~~NC~~	200 corrected entry NW 5/30/06	1.0
		Silicon, Total	530	544	2.6		1.0
		Tin, Total	0.83	2.1	87.1		1.0
		Strontium, Total	27.0	25.7	4.9		1.0
		Titanium, Total	885	1350	41.6		1.0
		Thallium, Total	0.74u	0.74u	NC		1.0
		Uranium, Total	2.4 u	2.4 u	NC		1.0
		Vanadium, Total	32.8	42.8	26.5		1.0
		Zinc, Total	84.9	89.8	5.6		1.0
		Zirconium, Total	14.7	20.0	30.5		1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0222 LVL LOT #: 0602L268

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	06L0122-LC1	Silver, LCS	48.7	50.0	MG/KG	97.4
		Aluminum, LCS	479	500	MG/KG	95.8
		Arsenic, LCS	876	1000	MG/KG	87.6
		Boron, LCS	457	500	MG/KG	91.4
		Barium, LCS	487	500	MG/KG	97.3
		Beryllium, LCS	25.0	25.0	MG/KG	100
		Bismuth, LCS	479	500	MG/KG	95.8
		Calcium, LCS	2420	2500	MG/KG	96.7
		Cadmium, LCS	23.9	25.0	MG/KG	95.6
		Cobalt, LCS	244	250	MG/KG	97.6
		Chromium, LCS	51.0	50.0	MG/KG	102.0
		Copper, LCS	125	125	MG/KG	99.8
		Iron, LCS	499	500	MG/KG	99.8
		Potassium, LCS	2260	2500	MG/KG	90.6
		Lithium, LCS	496	500	MG/KG	99.3
		Magnesium, LCS	2330	2500	MG/KG	93.3
		Manganese, LCS	77.5	75.0	MG/KG	103.3
		Molybdenum, LCS	498	500	MG/KG	99.7
		Sodium, LCS	2240	2500	MG/KG	89.6
		Nickel, LCS	192	200	MG/KG	96.0
		Phosphorus, LCS	446	500	MG/KG	89.1
		Lead, LCS	236	250	MG/KG	94.2
		Antimony, LCS	276	300	MG/KG	92.2
		Selenium, LCS	808	1000	MG/KG	80.8
		Silicon, LCS	321	500	MG/KG	64.2
		Tin, LCS	486	500	MG/KG	97.2
		Strontium, LCS	484	500	MG/KG	96.9
		Titanium, LCS	494	500	MG/KG	98.7
		Thallium, LCS	924	1000	MG/KG	92.4
		Uranium, LCS	239	250	MG/KG	95.5
		Vanadium, LCS	252	250	MG/KG	100.9
		Zinc, LCS	93.7	100	MG/KG	93.7
		Zirconium, LCS	489	500	MG/KG	97.8
LCS1	06C0030-LC1	Mercury, LCS	6.9	6.2	MG/KG	110.9

Lionville Laboratory Use Only

J6022L268

Custody Transfer Record/Lab Work Request

Page 1 of 1

LVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

See SRC

000000023

Client TNU- HANFORD SAF# RC-047

Est. Final Proj. Sampling Date

Project # 11343-6000-001-9999-00

Project Contact/Phone #

Lionville Laboratory Project Manager OV

QC Spec Del Std TAT 30 Days

Date Rec'd 2/15/06 Date Due 3/17/06

		A	B	C			D	E		F					
Refrigerator #		6	6	6			6	6		6					
#/Type Container	Liquid														
	Solid	G	G	G			G	G		G					
Volume	Liquid														
	Solid	50g	50g	50g			50g	50g		50g					
Preservatives		—	—	—			—	—		—					
ANALYSES REQUESTED →		ORGANIC						INORG							
		VOA	BNA	~~Pest~~ PCB	~~Pest~~ Herb		TOT TPH	Metal	CN	TPH Diesel TPH GAS					
		Lionville Laboratory Use Only													
			8260B	8082B	8260B		IPHC	METALS(1)		CCRD CBRC					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected														
001	J 11736			Sr	2-13-06	1145		1	1	1			1	1		1				
002	J 11741			↓	↓	1545		1	1	1			1	1		1				
003	J 11742					1445		1	1	1			1	1		1				
004	J 11743					1345		1	1	1			1	1		1				
005	J 11744			↓	↓	1245		1	1	1			1	1		1				

Special Instructions:

METALS(1) = HSL + B, Li, Mo, Si, Sn, Ti, U, P, Zr + Bi, Sr

RUN MATRIX QC

DATE/REVISIONS:

6/14/06 1. Bi, Sr added per DVR# 0606SR002

2.

3.

4.

5.

6.

Relinquished by	Received by	Date	Time
[illegible]	[illegible]	2/15/06	0900

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
"COMPOSITE WASTE"	ORIGINAL REWRITTEN		